

SDMS US EPA REGION V -1

**SOME IMAGES WITHIN THIS
DOCUMENT MAY BE ILLEGIBLE
DUE TO BAD SOURCE
DOCUMENTS.**



ecology and environment, inc.

12251 UNIVERSAL, TAYLOR, MICHIGAN 48180, TEL. (313) 946-0900
International Specialists in the Environment

DATE: January 18, 1991

TO: Mr. Duane Heaton, Deputy Project Officer
EPA Region V, Emergency Response Section 1

THRU: Mr. Lou Adams, Technical Assistant Team Leader
Region V, Technical Assistant Team

FROM: Mr. Herbert B. Langer, Technical Assistant Team Member
Region V, Technical Assistant Team *HL*

SUBJECT: Site Assessment Report: General Die Casting Corp.
Detroit, Wayne County, Michigan
TDD # T059012014

CC: Mr. Bob Bowlus, On Scene Coordinator
EPA Region V, Emergency Response Section 1

Attached is the site assessment report, photographic log, site location, and site map for General Die Casting Corp. This report amends the previous report. We apologize but due to the poor quality of certain informative photographs, MDNR photos were used in their place. These photographs are the first three entries of the photodocumentation.

Because the need for site sampling has been waived at this time, this report and its accompanying information should fulfill this TDD requirements. If there are any questions or if I can be of any further assistance please feel free to call.



ecology and environment, inc.

12251 UNIVERSAL, TAYLOR, MICHIGAN 48180, TEL. (313) 946-0900
International Specialists in the Environment

**SITE ASSESSMENT REPORT
FOR
GENERAL DIE CASTING CORP.
DETROIT, WAYNE COUNTY, MICHIGAN**

JANUARY 1991

**PREPARED FOR
MR. DUANE HEATON
DEPUTY PROJECT OFFICER
EMERGENCY RESPONSE BRANCH
EPA REGION V**

CONTRACT NUMBER 68-WO-0037

PREFACE

The Ecology and Environment Inc. (E&E) Technical Assistance Team (TAT) was tasked January 20, 1991 by Mr. Duane Heaton of the United States Environmental Protection Agency (EPA) to conduct a site assessment at the General Die Casting facility, 13700 Mt. Elliot, Detroit, Michigan (see figure 1). The Technical Directive Document number (TDD#) is T059012-014. This record reports the following TDD tasks: TAT will prepare a health and safety plan, compile available information, perform a site inspection, conduct air monitoring, and evaluate the threat to human health and environment. At 1100 hours Mr. Bob Bowlus met Mr. Chuck Dusel, Mr. Herb Langer, and Mr. Rich Spehar at the Detroit TAT office to go investigate the site. At 1135 hours all arrived at the site.

BACKGROUND

General Die Casting is a 21,250 sq. ft. building located on 0.6 acres (see figure 2). The company manufactured and electroplated zinc die castings. According to Michigan Department of Natural Resources (MDNR) files, acquired from Mr. Mike Stenzel (313-953-0241), as of March 3, 1991 the company was owned by Mr. Richard Shirley (CHB) and Mr. Julian Steenkiste (Pres).

Apparently General Die Casting attempted to get a Clean Closure from the MDNR so that it could be sold to Spartan Metal Finishing, 5400 E. Nevada, Detroit, Michigan (Mr. Bill Aikens, 313-368-7888). General Die Casting had a private contractor file for the closure. The contractor was Toxico Corp., 26711 Northwestern Hwy., Suite 128, Southfield MI (Mr. Robert Houghton 313-353-8450). Toxico claimed the only contamination in the soil was oil from a prior owner. Toxico began excavating soil on the south side of the building.

Concerned about the situation, the General Die Casting neighbor to the south, Central Steel and Wire, 13400 Mt. Elliot, hired Gabriel Laboratories, 1421 N. Elston, Chicago, Illinois (Mr. Steve Sawyer 312-486-2123), to test the excavated soil and groundwater. Gabriel Laboratories found significant amounts of cyanide in the soil sample. On February 11, 1991 Gabriel Laboratories sent a letter to Mr. Mike Stenzel of the MDNR requesting a denial of the Clean Closure of General Die Cast. The MDNR then collected soil samples. MDNR tests of the soil samples indicated cyanide concentrations of 755 to 1673 parts per million (ppm) along with significant amounts of nickel, copper, and zinc. These materials are common to zinc die cast plating facilities. Neither General Die Casting or Toxico reported cyanide contamination until confronted by the MDNR.

SITE CONDITIONS

Upon arrival by TAT and EPA the Spartan Metal Finishing Co. had a truck on the site removing equipment from General Die Casting. The men in the Spartan Metal Finishing Co. truck told Mr. Bob Bowlus and Mr. Chuck Dusel they would need permission from Mr. Bill Aikens to enter the building. Mr.s Bowlus and Dusel went to Spartan Metal Finishing and spoke to Mr. Aikens and Mr. Steenkiste. Neither would admit to ownership of General Die Casting. Finally Mr. Shirley arrived and Mr.s Shirley and Aikens accompanied TAT and EPA on the site investigation. TAT's Dusel, Langer, and Spehar entered the site in level B. While TAT was in the building Mr.s Shirley and Aikens followed along in level D even after Mr. Langer had shown them the air quality was poor in some building locations. After the initial site assessment, OSC Bowlus donned his personnel protection equipment and entered the building.

LOCATION OF HAZARDOUS SUBSTANCES (figure 2)

- o Quad #1; The Organic Vapor Analyzer (OVA) showed constant readings of 20-30 units in this part of the building. Quad #1 contains 23 drums labeled "waste water". If these are from the plating operation, they may contain heavy metals and cyanide. There are also 4 drums labeled Uniprime (PPG Industries) which seem to be unused.
- o Quad #2; The old electroplating area is just inside the south wall. Outside this wall is the location of the contaminated soil. The area seems to have been cleared and contains a minimum of equipment or chemicals. In this area there are many floor drains and a trench. The trench contains unknown sediment. This area of plant could be a potential source of the soil contamination. OVA readings in this portion of plant were less than or equal to that of the outside environment.
- o Quad #3; The waste treatment and storage area of plant contains several above ground storage tanks filled with solution. These tanks make up the electroplating waste treatment system. This waste treatment system is in good condition and probably has a significant value. There is a large amount of sediment in the containment area. The sediment is likely to contain heavy metal salts spilled from treatment. Many containers of used and unused materials are in this area including; 2-15 gallon sulfuric acid drums, 2-15 gallon Hydrochloric acid drums, 1 drum Semibright 430, 1 drum liquid nickel chloride, 3 drums ferric chloride, 1 drum liquid nickel sulfate, 4 drums Summysol 150, 4 drums swimming pool chlorinator, and 4 bags sodium carbonate. In general the containers seem in good condition. OVA readings in this area were less than or equal to that of the outside environment.

HAZARDOUS RELEASE

Paragraph (b) (2) of section 300.65 of the National Contingency Plan outlines several conditions which determine appropriateness of a removal action. Observations made by TAT at the General Die Casting site during the investigation and from MDNR data which apply to specific subsection include;

1. Actual or potential exposure to hazardous substances or pollutants or contaminants by nearby populations, animals, or food chain;

According to MDNR analytical results the soil on the south side of the building is contaminated with cyanide (755-1673ppm) it also contains high levels of nickel, copper, lead, and zinc. It is possible that the area within the buildings foundation walls is similarly contaminated.

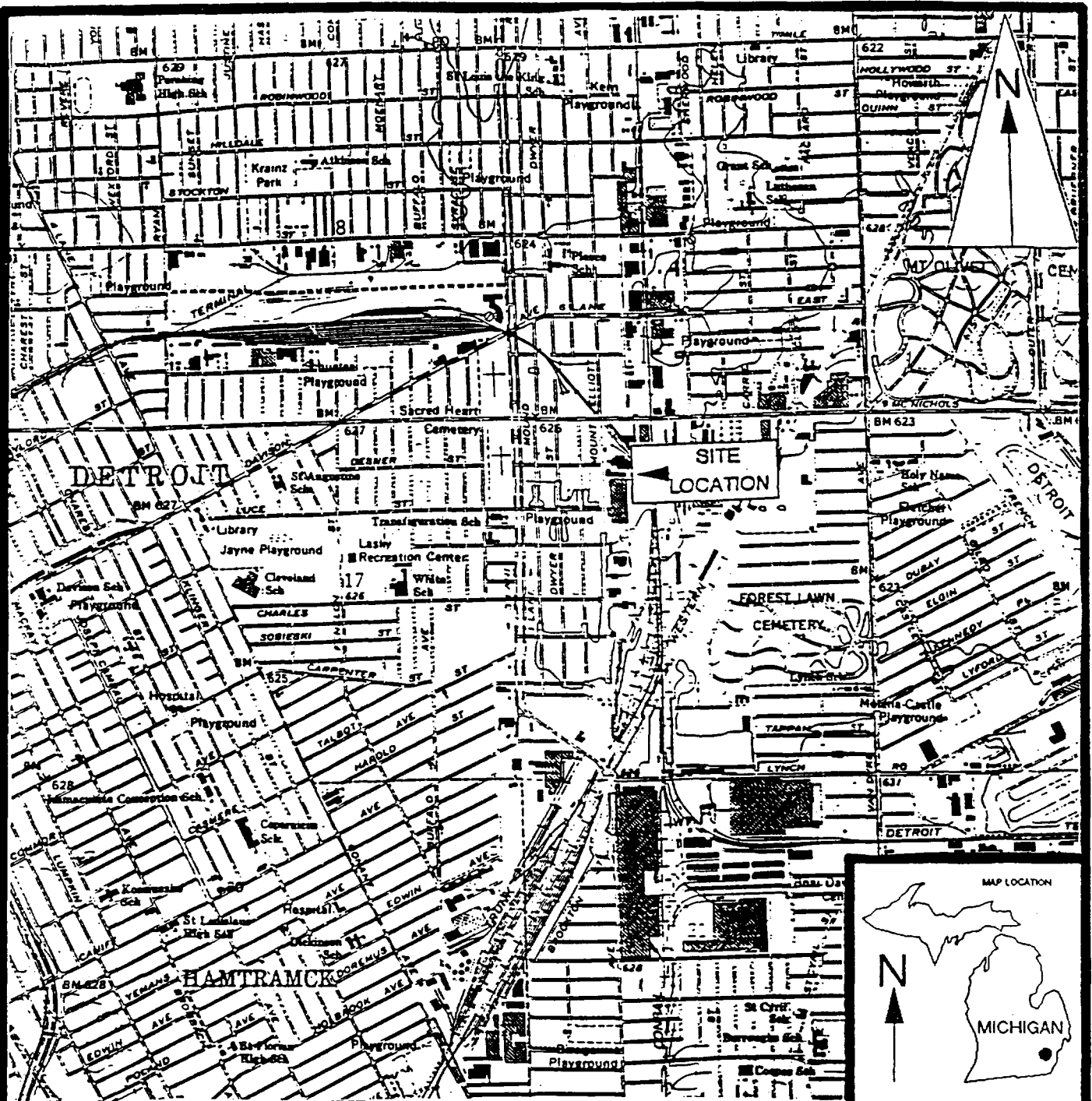
Upon arrival at the site men were moving in and out of the building. OVA readings in some areas of the building were above those at which E & E requires level B protection. Mr.s Shirley and Aikens ignored TAT warnings about air quality in the building. There are also many areas in the building with significant amounts of unknown residue which can be tracked out of the building.

2. Hazardous substances or pollutants or contaminants in drums, barrels, tanks, or other bulk storage containers that may pose a threat of release;

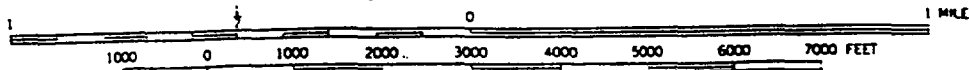
There is a significant number of tanks and drums in the building which contain what appears to be plating waste water and other chemicals. These containers may contain cyanide and heavy metals. Because of the value of the equipment containing the liquids the equipment is likely to be dismantled. If not done properly this could result in release.

3. High levels of hazardous substances or pollutants or contaminants in soils at or near the surface, that may migrate.

Large amounts of the contaminated soil on the south side of the building have already been taken off site. According to MDNR records this soil may have been sent out as non hazardous fill. Significant amounts of what appears to be excavated soil remains in piles covered with plastic. The area is a higher elevation than the local street so that any surface water run off from it is likely to drain into the street and storm drains.



SOURCE: USGS 7.5 Minute Series (Topographic) Quadrangle



Ecology and Environment, Inc.
Technical Assistance Team
Region V

TDD # T059012014

GENERAL DIE CASTING
LOCATION MAP

FIGURE 1

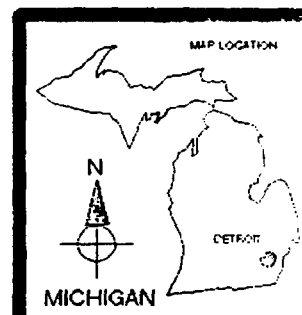
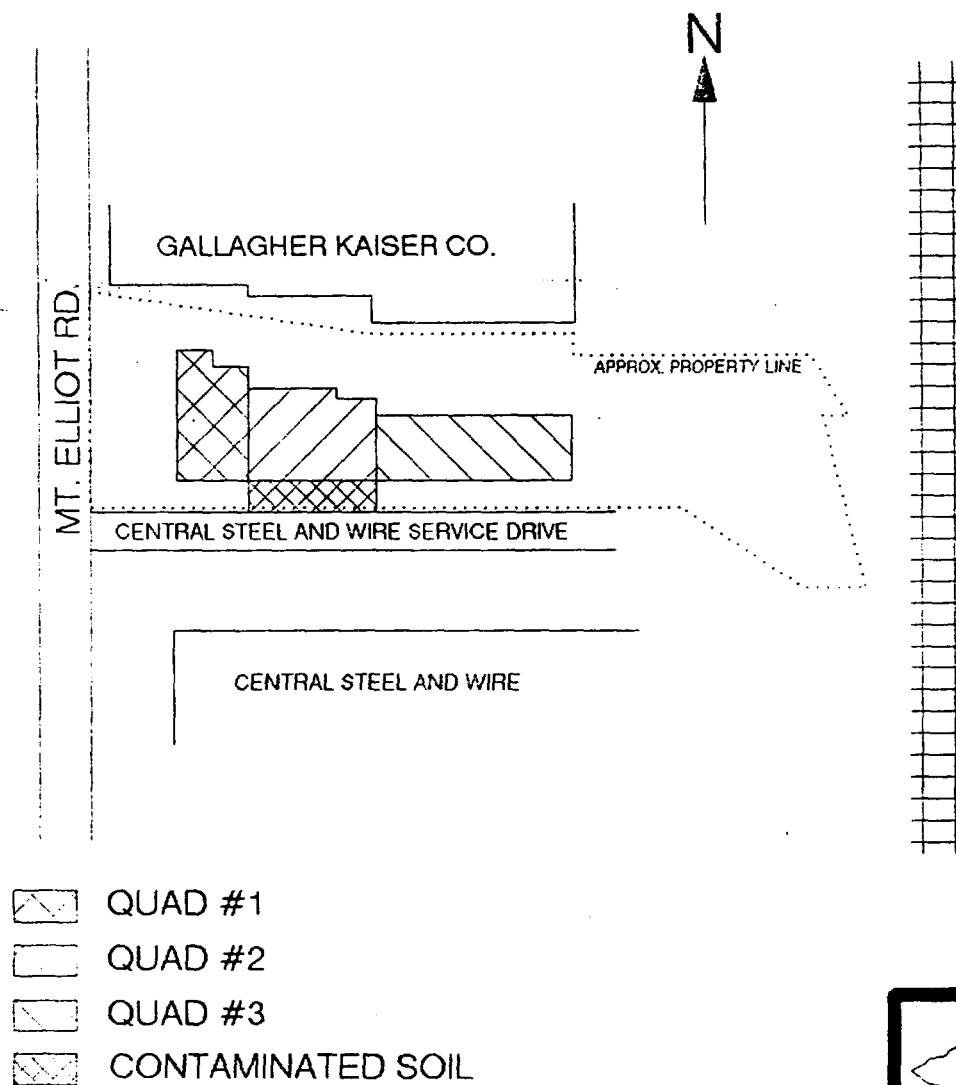


FIGURE 2
(NOT TO SCALE)

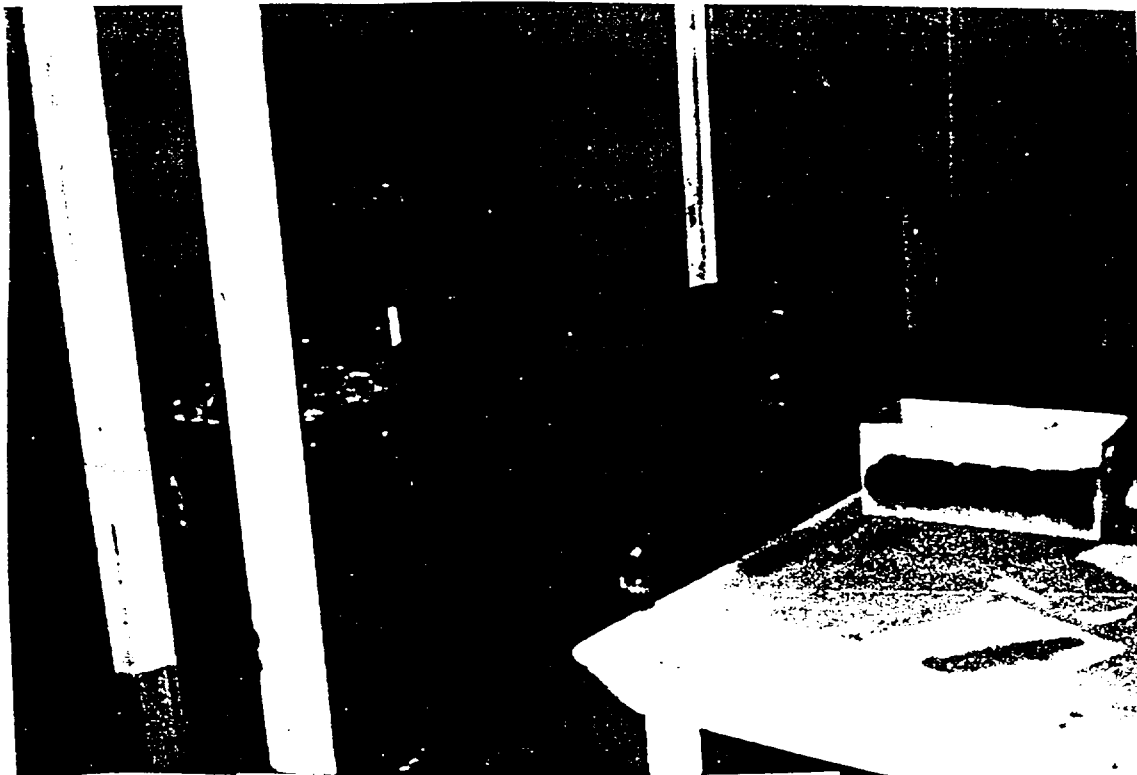


Ecology and Environment, Inc.
Technical Assistance Team
Region V

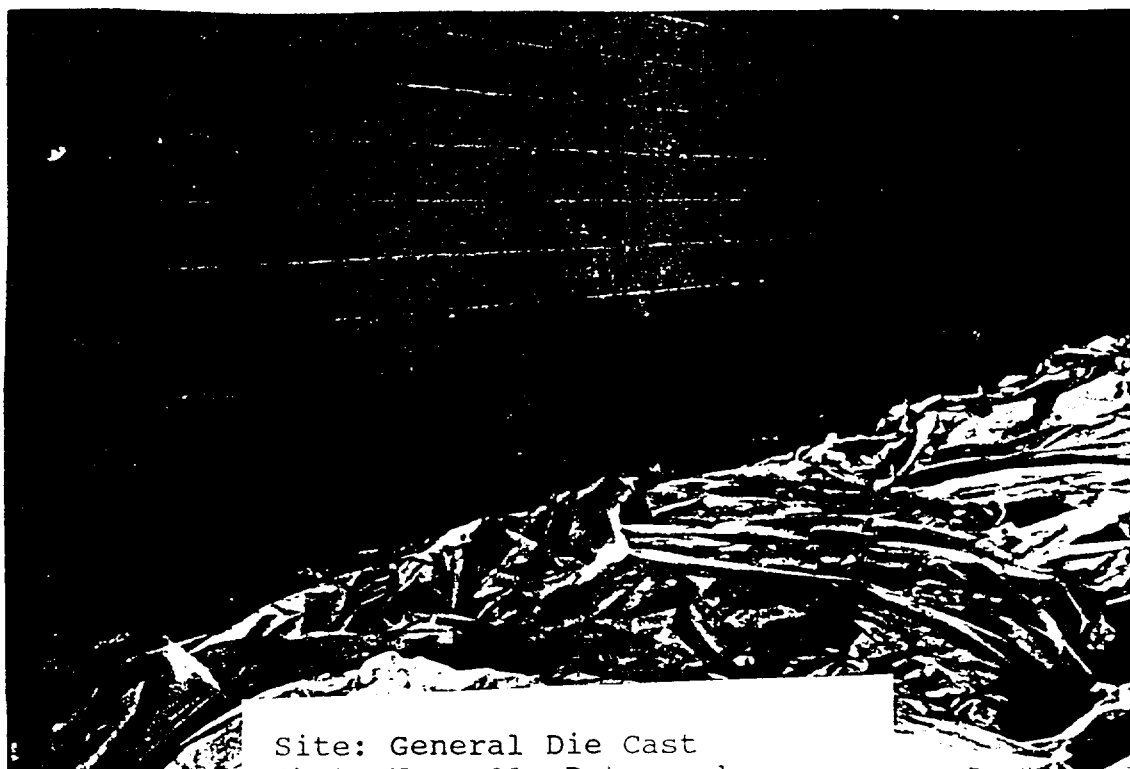
TDD #

TO59012014

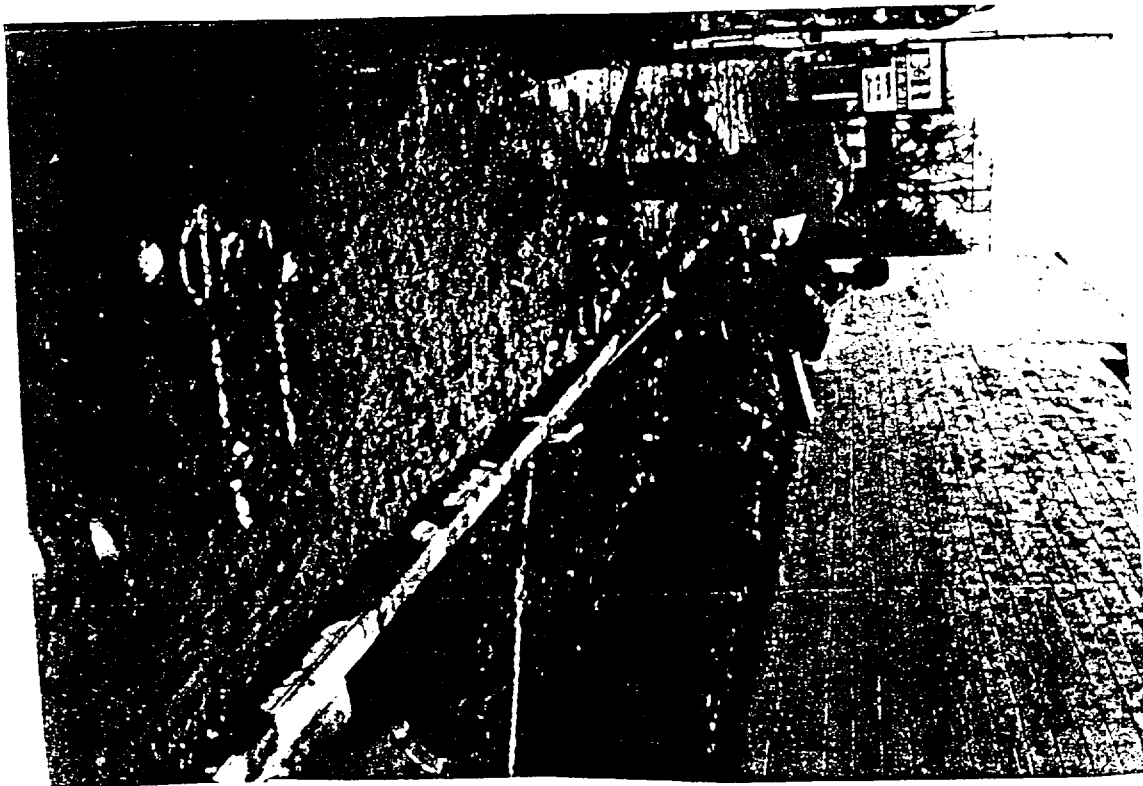
**GENERAL DIE CASTING
SITE MAP**



Site: General Die Cast
 Photo No.: 01 Date: unknown
 Direction: Quad #1
 Camera: OLYMPUS INFINITY 35mm
 Photographer: MDNR
 Subject: Waste water drums.



Site: General Die Cast
 Photo No.: 02 Date: unknown
 Direction: South wall
 Camera: OLYMPUS INFINITY 35mm
 Photographer: MDNR
 Subject: South wall staining.

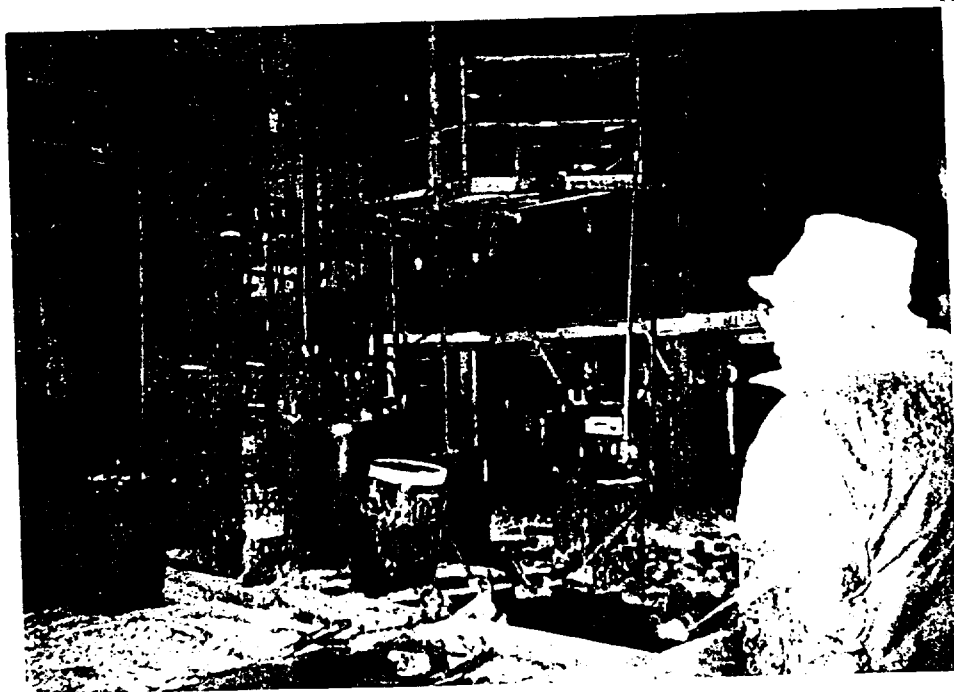
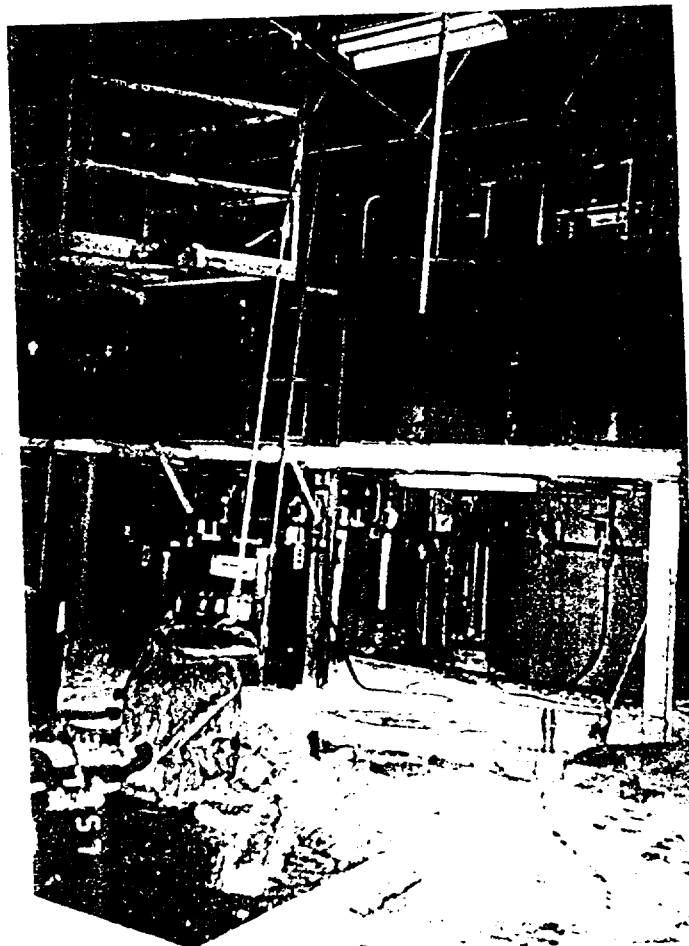


Site: General Die Casting
 Photo No.: 03 Date: unknown
 Direction: South wall
 Camera: OLYMPUS INFINITY 35mm
 Photographer: MDNR
 Subject: Toxico excavation.

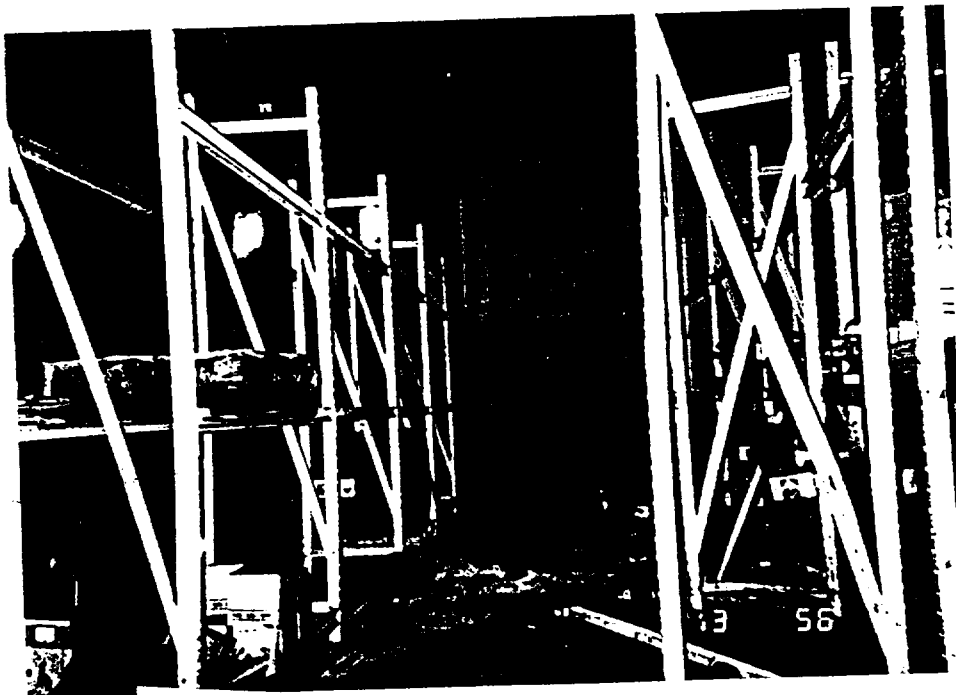


Site: General Die Casting
 Photo No.: 04 Date: 12/20/90
 Direction: West
 Camera: OLYMPUS INFINITY 35mm
 Photographer: Rich Spehar
 Subject: Trench along south
 wall.

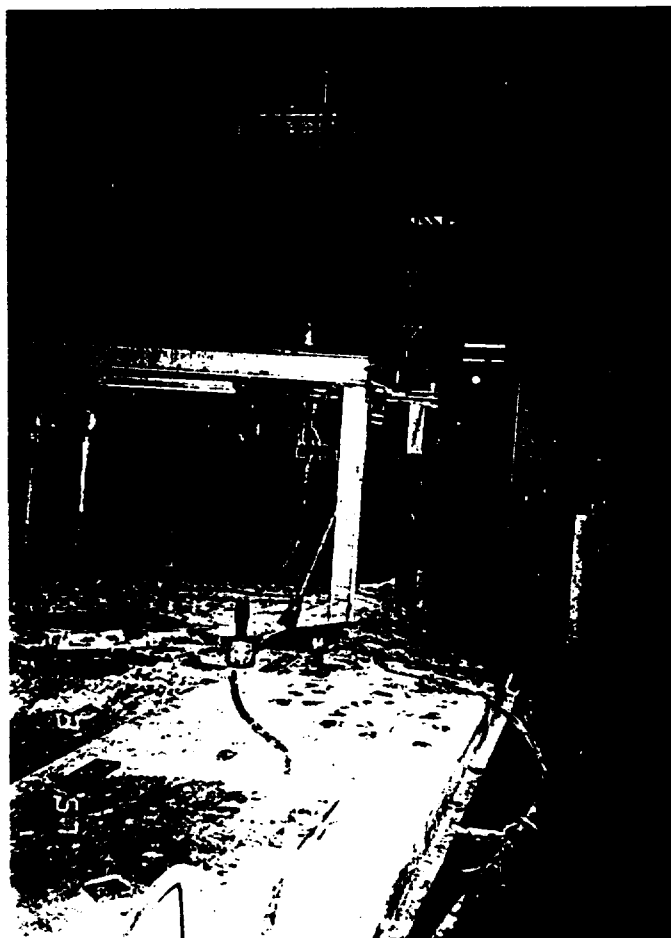
Site: General Die Casting
Photo No.: 06 Date: 12/20/90
Direction: Southwest
Camera: OLYMPUS INFINITY 35mm
Photographer: Rich Spehar
Subject: Waste treatment area
and residue left on floor.



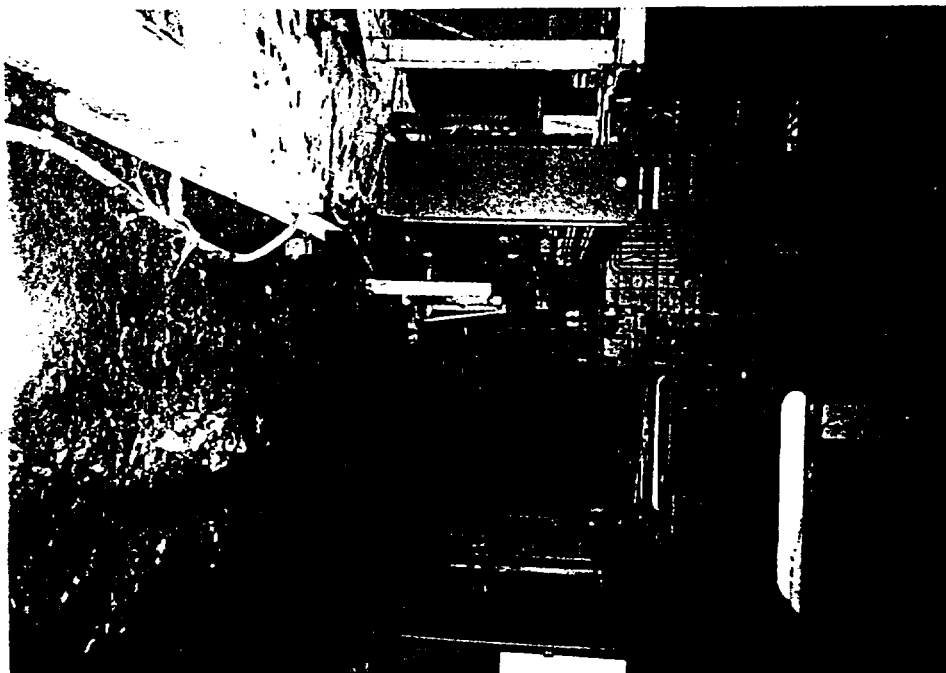
Site: General Die Cast
Photo No.: 06 Date: 12/20/90
Direction: Southwest
Camera: OLYMPUS INFINITY 35mm
Photographer: Rich Spehar
Subject: PRP surveys waste
treatment area.



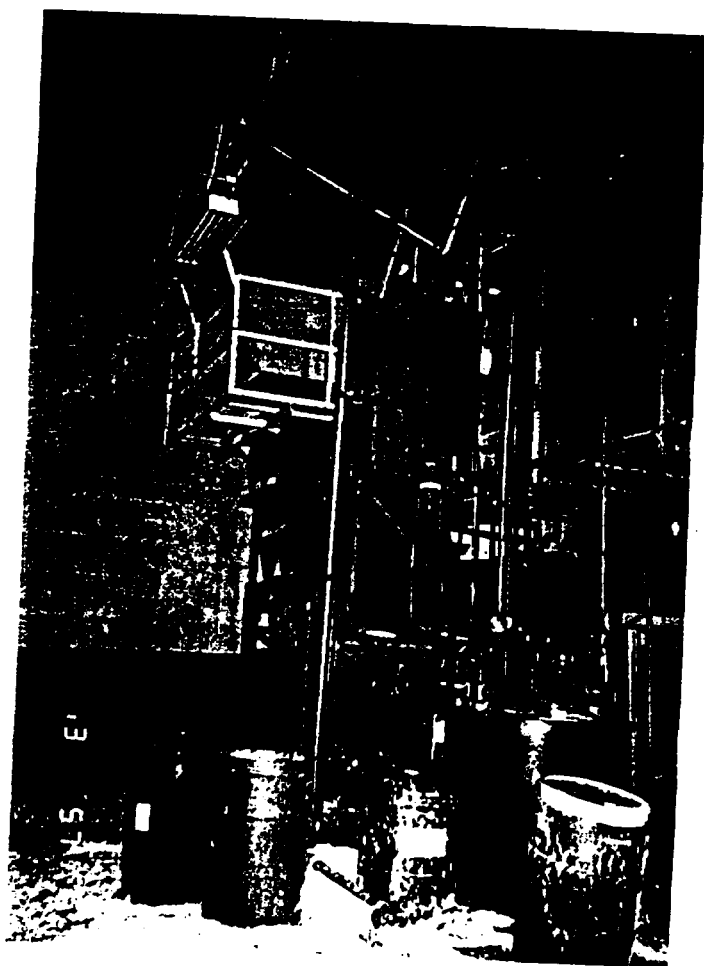
Site: General Die Cast
 Photo No.: 07 Date: 12/20/90
 Direction: West
 Camera: OLYMPUS INFINITY 35mm
 Photographer: Rich Spehar
 Subject: Chemical storage area.



Site: General Die Casting
 Photo No.: 08 Date: 12/20/90
 Direction: West
 Camera: OLYMPUS INFINITY 35mm
 Photographer: Rich Spehar
 Subject: Waste treatment area.



Site: General Die Casting
 Photo No.: 09 Date: 12/20/90
 Direction: West
 Camera: OLYMPUS INFINITY 35mm
 Photographer: Rich Spehar
 Subject: Water drains in from
 roof near treatment area.



Site: General Die Casting
 Photo No.: 10 Date: 12/20/90
 Direction: South
 Camera: OLYMPUS INFINITY 35mm
 Photographer: Rich Spehar
 Subject: Drums and residue in
 waste treatment area.



Site: General Die Casting
Photo No.: 11 Date: 12/20/90
Direction: South
Camera: OLYMPUS INFINITY 35mm
Photographer: Rich Spehar
Subject: ATATL Dusel and TAT
Langer investigate treatment